Met briefing, AM 041106

Weather outlook

At this time we are just downstream of an upper level ridge which is in a curved pattern over New Mexico and Utah. We are thus in a region of descending motion, leading to clear skies. An upper level low is spinning off the California coast, and a deep trough is off the east coast. The California low, however, is not completely cutoff, as it will have a strong impact on the dynamics of the jet stream for the next week. By Monday or Tuesday we should expect some upper level moisture from this trough to be over our area. By late Thursday there is a likely cold front passage resulting from an upper level trough passing north of us. The implications for our local weather, however, do not look strong at this stage, as it really looks like no more than a flattening of the upper level ridge over our area. This is due to the basic trough pattern off the west coast. In any case, we expect no rain until possibly Wednesday night (ahead of the above-mentioned cold front), and the probabilities are fairly small (no more than 30%, peaking on Thursday). Because of the proximity of the warm Gulf waters, these rain chances include a possibility of thunderstorms. I do not believe that these chances are any where near as large as we had the last time around (Monday and Tuesday November 1 and 2). In short, though it is quite far out at this stage for the latter part of next week, I do not expect that local weather will be an issue for the rest of the deployment. This statement applies with greater certainty through next Tuesday.

At this point, Euro and GFS models are in rough agreement on the movement of the upper level troughs and the implications for our weather. It should be noted, though, that the GFS has backed off in timing in the last 24 hours (comparing runs initialized 0Z Saturday with 0Z Friday). I do not believe we will have the frustrating postponements associated with the arrival of the major front last Monday and election day, but I think the models may be faster than we expect.

Cloud outlook through next Wednesday.

Monday:

For Monday, the Aura track is over west Texas, just ahead of a short wave trough moving through the longer trough pattern over the west coast. Thus, we would expect significant upper level, mid-level and boundary layer clouds as moisture is adviected eastward of this trough. Most of this cloud is boundary layer cloud (based on the forecasts). Not too much should be made of the gap in cloudiness in west Texas itself, as the forecasts are backing off in timing – that is, the 0Z run initialized at 0Z Saturday is a bit slower in moving the above-described trough than the 0Z run initialized 24 hours earlier.

Tuesday:

Tuesday's cloud pattern shows generally clear skies over the land portion of the Aura track. This reflects a backing off from yesterday's forecast run. The Gulf shows more or less the same pattern, but the 850 mb high is further west in the latest run. We thus

expect more cloudiness in the vicinity of the coast as winds are more clearly from the north near the Aura track than they were in the previous forecast. The Euro is a little faster than the GFS here. We might expect some high cloudiness over the land portion of the track. As for the chance of clear patches over the Gulf, I would expect them to be most likely right near the coast, as weakly subsiding air moves across. Further out, puffies will form as the air moving out is fairly cool.

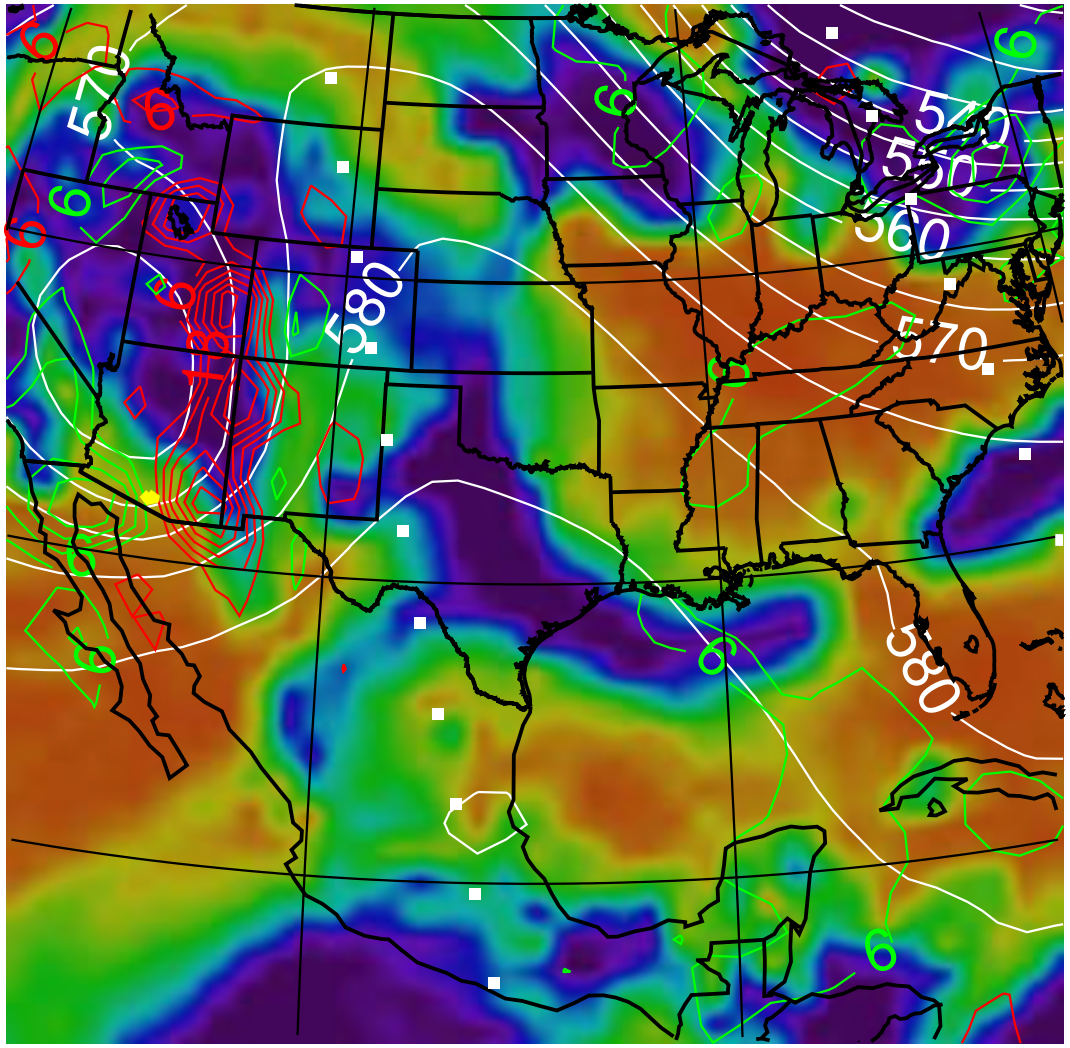
Wednesday:

By Wednesday afternoon, the upper level trough is over western Missouri, and clouds ahead of the approaching cold front trail through central Texas. These are mostly low and some middle clouds. The high clouds are mostly to the east.

Latest comments.

The latest run (6Z Saturday) shows very little slowing of the 500mb trough movements.

00 UTC on 9 November, 2004 at 500.0 mb



NMC, Grid: GG1X1

Seq: E01, Spec: SAVN170L42

72 hr fcst

Total CF ()

-0.20
-0.05
0.10
0.25
0.40
0.55
0.70
0.85
1.00

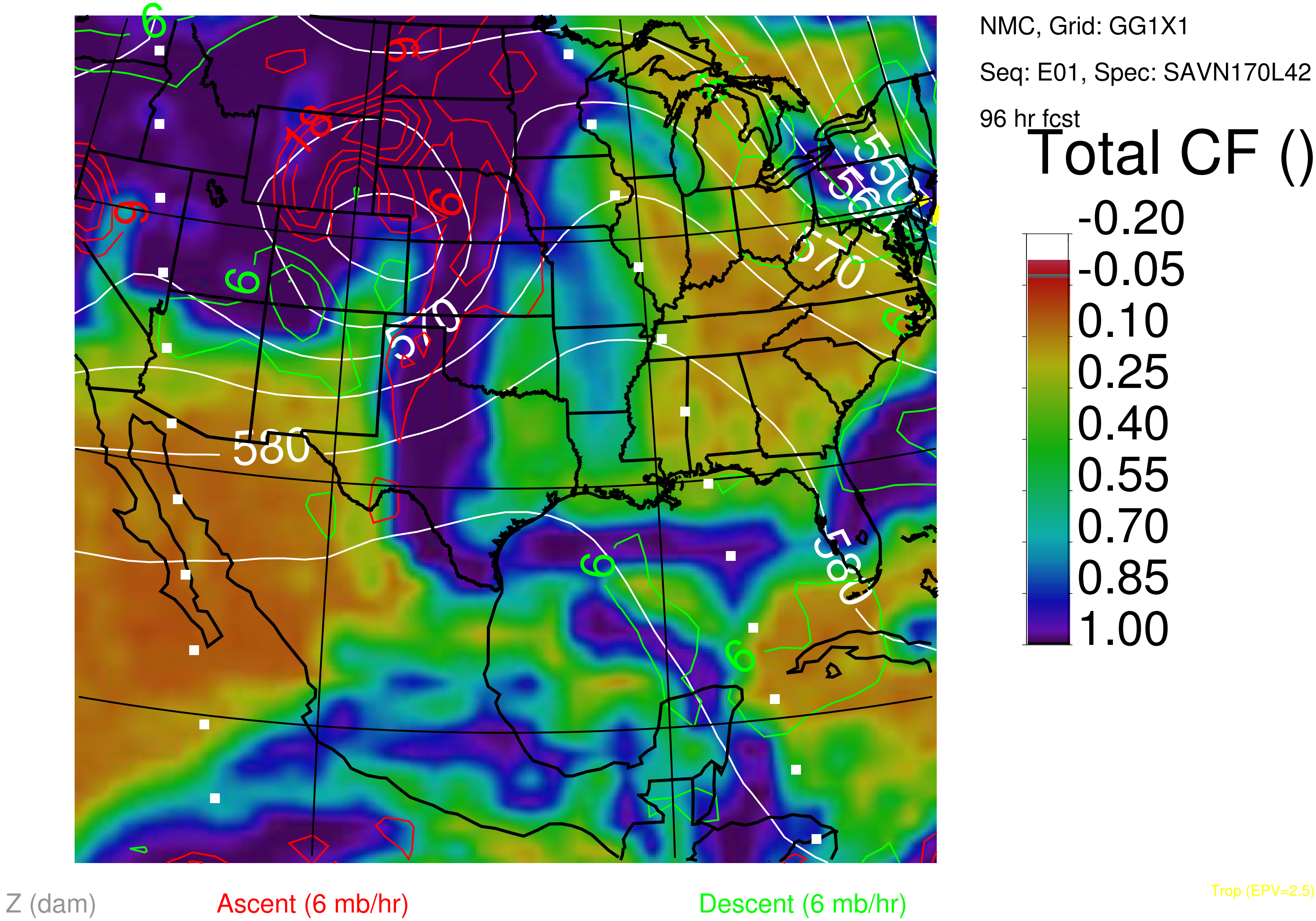
Z (dam)

Ascent (6 mb/hr)

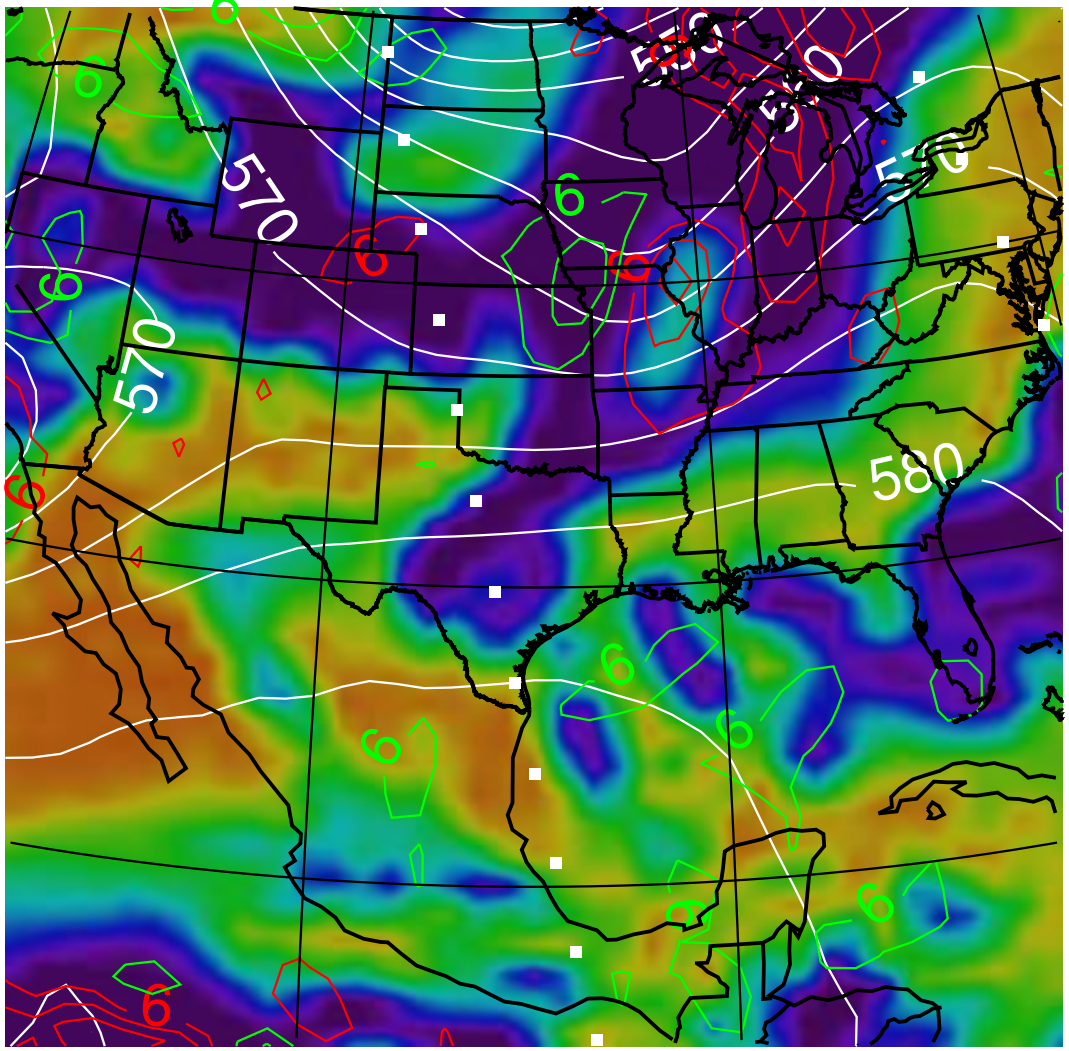
Descent (6 mb/hr)

Trop (EPV=2.5)

00 UTC on 10 November, 2004 at 500.0 mb



00 UTC on 11 November, 2004 at 500.0 mb



NMC, Grid: GG1X1

Seq: E01, Spec: SAVN170L42

120 hr fcst

Total CF ()

-0.20
-0.05
0.10
0.25
0.40
0.55
0.70
0.85
1.00

Z (dam)

Ascent (6 mb/hr)

Descent (6 mb/hr)

Trop (EPV=2.5)